

### REMARKS/ARGUMENTS

This communication is in response to the Final Office Action dated September 2, 2008. Claims 2, 4-9 and 11 have been previously canceled, without prejudice. Claims 1, 3, 10 and 12 remaining pending in this application, with claims 1 and 12 being the only independent claims. Reconsideration in view of the arguments presented below is respectfully requested.

#### **Claim Rejections under 35 U.S.C. 112, 1<sup>st</sup> paragraph**

Claims 1, 10 and 12 are rejected as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, the Examiner asserts that claims 1 and 12, as amended, recites "(a) storing training input data", while claim 10 similarly recites a "computer digital storage medium." The Examiner asserts that no "computer digital storage medium" or any other computer hardware for data storage is disclosed in the specification. A

Applicants respectfully disagree. The specification provides support in paragraph [0021] when discussing conventional algorithms and their deficiencies that "they require extremely long computing times and fail on commercially available computers due to the memory requirement." (emphasis added) Thus, support is provided in the specification, as originally filed, for the storage of data on a memory device. Accordingly, withdrawal of these rejections with respect to claims 1, 10 and 12 under 35 U.S.C. §112, 1<sup>st</sup> paragraph is requested.

#### **Claim Rejection under 35 USC §101**

In the outstanding Office Action the Examiner rejects claims 1, 3, 10 and 12 under 35 U.S.C. §101 on the grounds that these claims comprise a mathematical algorithm and thus are non-statutory subject matter. Specifically, the Examiner states "Claim 1 recites no physical transformation and while a final result of 'making the neural network prediction by disregarding the input data record if it is outside the working range of the used neural network and processing the input data record by the used neural network if it is inside the working range' **may be concrete and useful, it is not tangible** as 'making the neural network prediction by disregarding the input data record if it is outside the working range of the used neural network and processing the input data record by the used neural network if it is inside the working range' refers to

nothing other than the end state of the neural network and benefits no other thing than the neural network itself.” {September 2, 2008 Final Office Action: p. 5, l. 22 through p. 6, l.

9}(emphasis added)

Applicants respectfully disagree and assert that claims 1, 3 and 10 are patent-eligible subject matter under 35 U.S.C. §101. The Examiner in the outstanding rejection is applying the “useful, concrete and tangible inquiry.” However, the Federal Circuit in the recent decision *In re Bilski*, Fed. Cir. 2007-1130, clarified that this is not the proper inquiry, instead relying on the machine-or-transformation test. (“Therefore, we also conclude that the ‘useful, concrete and tangible result’ inquiry is inadequate and reaffirm that the machine-or-transformation test outlined by the Supreme Court is the proper test to apply.” *In re Bilski*, at p. 20.)

“The machine-or-transformation test is a two-branched inquiry; an applicant may show that a process claim satisfies §101 either by showing that his claim is tied to a particular machine, or by showing that his claim transforms an article.” *In re Bilski*, at 24 (emphasis added).

This first branch of the inquiry is met in that the process claims of the present application are tied to a particular machine, e.g., a neural network. Applicant also submits that the second branch of the test is met by the process claims of the present application. The *Bilski* decision identified some illustrative examples establishing processes in which a transformation or reduction of an article into a different state or thing constituted patent-eligible subject matter. A claim involving the transformation of data to constitute patent-eligible subject matter should “specify any particular type of data or nature of data; or specify how or from where the data was obtained or what the data represented.” *In re Bilski*, at 25.

The process claims of the present application specify a particular type of data or nature of data. Specifically, the process claims expressly specify the particular type of data or nature of the data being transformed as “an input data record being manufacturing process data selected from the group comprising data related to the materials used, composition data, parameters of the production system, pressure data and/or temperature data.”

Having established that both branches of the machine-or-transformation test have been met, Applicants submit that the present claimed method constitutes patent-eligible statutory subject matter and requests that the rejection under 35 U.S.C. §101 be withdrawn.

**Claim Rejection under 35USC § 112, 1<sup>st</sup> paragraph**

The Examiner rejected claims 1, 3, 10 and 12 as being rejected under 35 U.S.C. §112, first paragraph, on the grounds that these claims fail to satisfy the requirements under 35 U.S.C. §101 and thus as a matter of law fail to enable one of ordinary skill in the art to use the invention under 35 U.S.C. §112. In view of the arguments traversing the rejection under 35 U.S.C. §101, Applicants submit that these rejections are also overcome.

**Allowable Subject Matter**

The prior art claim rejections have been withdrawn. Accordingly, Applicants submit that claims 1, 3, 10 and 12 are now allowable over the prior art of record.

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**CONDITIONAL PETITION FOR EXTENSION OF TIME**

If entry and consideration of the amendments above requires an extension of time, Applicants respectfully request that this be considered a petition thereof. The Assistant Commissioner is authorized to charge any fee(s) due in this connection to Deposit Account No. 14-1263.

**ADDITIONAL FEE**

Please charge any insufficiency of fees, or credit any excess, to Deposit Account No. 14-1263.

Respectfully submitted,  
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